



MSD

January 30, 2006

Mr. Femi Akindele  
Remedial Project Manager  
Kentucky/Tennessee Section  
U.S. Environmental Protection Agency  
Region IV  
61 Forsyth Street  
Atlanta, GA 30303

**Re: Result of Air Quality Monitoring - FY 06, First Quarter (FY06-1Q),  
Lees Lane Superfund Site, Jefferson County, Kentucky, Administrative Order on  
Consent, USEPA Docket No-91-32-C**

Dear Mr. Akindele

In accordance with paragraph 11, under Reporting Requirements, of the subject Consent Order and Attachment 1, Operation and Maintenance Plan For Post-Removal Site Control at the Lee's Lane Landfill Site. Section 4.2, Air Quality Monitoring, attached for your information and files is one photocopy each of the following items, prepared by URS Corporation, 1600 Perimeter Park Drive, Suite 100, Morrisville, North Carolina 27560 and received by MSD on January 26, 2006.

1. URS Corporation letters dated January 24, 2006, 3 pages.
2. Figure 1, Lees' Lane Landfill, Sampling Locations, 1 page.
3. Table 1, TO-15 Data Summary for Ambient Air Samples at the Lees' Lane Landfill, Sampling date: September 30, 2005, 1 page.
4. Table 2, On-Site Meteorological Data, Sampling date, September 30, 2005, 1 page.
5. Table 3, TO-15 Data Summary for Gas Monitoring Well Samples at the Lees' Lane Landfill, Sampling date: September 30, 2005, 1 page.

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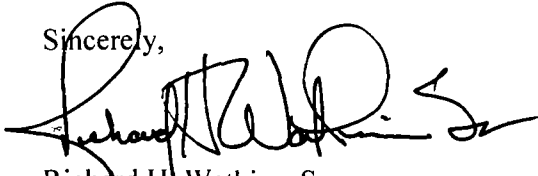
Mr. Femi Akindele

January 30, 2006

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Please advise if you have any questions concerning the attached information.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard H. Watkins, Sr.", with a stylized flourish at the end.

Richard H. Watkins, Sr.  
Maintenance Assistant

RHW/rw  
Lees-06-1Qtr

Enc.

cc: Kentucky National Resource Environment Protection Cabinet  
Mr. Ken C. Logsdon, Division of Waste Management  
H. J. Schardein, Executive Director  
Michael Griffith  
Lees Lane File



URS Corporation  
1600 Perimeter Park Drive  
Morrisville, North Carolina 27560  
Telephone: 919.461.1100  
Fax: 919.461.1415

31824218.3902

January 24, 2006

Mr. Rick Watkins  
Louisville Metropolitan Sewer District  
3050 Commerce Center Place  
Louisville, KY 40211

Dear Rick:

Enclosed is the summary analytical report for the ambient air and gas monitoring well samples collected at the Lee's Lane Landfill site on September 30, 2005 (Collection 38). During the sampling event on September 30, 2005, it was discovered that one of the canisters did not have an adequate vacuum pressure and thus was not suitable for sampling. All six ambient samples, along with gas wells G1, G2, G3, G4, G5L and a Field Blank were taken on September 30, 2005. The gas well designated as G5R, a duplicate sample was not collected.

A map of the site, labeled with the sample collection locations for your reference, is shown in Figure 1. Table 1 is a tabular summary of the ambient samples with the primary analytes required for submission to EPA. Ambient air samples indicate low levels of the primary analytes at a similar level compared to the last reporting quarter, other than methane, which was higher at each sampling location. There were a few differences in the non-primary analytes: Ambient concentrations of acetylene were slightly higher (2.75-6.06 ppb) than in the previous sampling event (0.6-1.2 ppb) in April 2005, but significantly lower as compared to September 2004 (11-24 ppb).

The sampling locations were chosen based on a combination of historical prevailing on-site meteorology and accessible sites in the adjacent residential neighborhood per the standard sampling protocol. The meteorological conditions were moderate to warm (48-72°F) with wind speeds ranging from calm to 8.0 mph during the sampling day. Because meteorological data were not available for the site, the information displayed in Table 2 was obtained from the Louisville International Airport (Standiford Field) National Weather Service Station. The ambient air samples were collected in Summa canisters positioned 3-5 feet above ground level, integrated over an approximate 8.5-hour collection period.

The methane analysis was performed by GC/FID using a separate analytical system from the TO-15 analysis employed at STL in Austin. The TO-15 analytical methodology using Gas Chromatography/Mass Spectrometry (GC/MS) was employed. Samples were handled with standard laboratory chain-of-custody procedures. Sample canisters and flow controllers were cleaned and blanked using method TO-12 for total nonmethane hydrocarbons prior to field deployment. All of the samples were successfully collected and analyzed for methane and the TO-15 target analytes. Quality control parameters of precision (repeatability) and spiking of surrogate compounds meet internal URS and project-required specifications.

Mr. Rick Watkins  
January 24, 2006  
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The reliability of this data set can be characterized as good, based on the repeatability (analytical precision), surrogate spike recoveries, and blank levels. The September 30, 2005 field blank canister reported a positive hit for Halocarbon 114 (141 ppb), cis-1,2-Dichloroethene (46.5 ppb) and Methane (2.2 ppm). The Methane concentrations are similar to those reported for the April 2005 sampling period. The reported results have not been blank corrected in attached tables per our standard project procedure.

Table 3 is a tabular summary of the gas well samples with the primary analytes required for submission to EPA. The gas monitoring wells were screened with a GA-90 Analyzer to test for the presence of methane prior to field sample collection. One well, G1, was effectively vented prior to being screened with the GA-90, due to one of the sampling ports needing to be replaced.

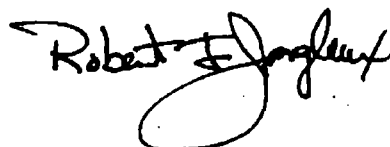
Analytical results from gas wells G2, G3, G5L were similar to those reported from the previous sampling event.

Gas well G1 contained concentrations of many analytes that varied considerably from the concentrations measured in April 2005. In particular, gas well G1 concentrations of benzene (37.2 ppb compared to 50.4 ppb from April 2005), halocarbon 114 (188 ppb) was elevated even more than previously, methane (57,900 ppm) was down by almost one third from April 2005, and Toluene (50.5 ppb) was higher compared to the concentrations during the previous sampling event.

Gas well G4 contained concentrations of many analytes that were lower than the April 2005 (spring) collection. In particular, gas well G4 concentrations of 1,1,1-trichloroethane, carbon tetrachloride, chloroform, halocarbon 114, methane and tetrachloroethene were especially lower compared to the concentrations in the previous sampling event.

URS appreciates the opportunity to assist your staff with this project. Please advise me at (919) 461-1242 if you have any questions.

Sincerely,



Robert F. Jongleux  
Project Manager

Enclosure

cc: Michael Kajder, URS/LOU  
Project File/Task 38

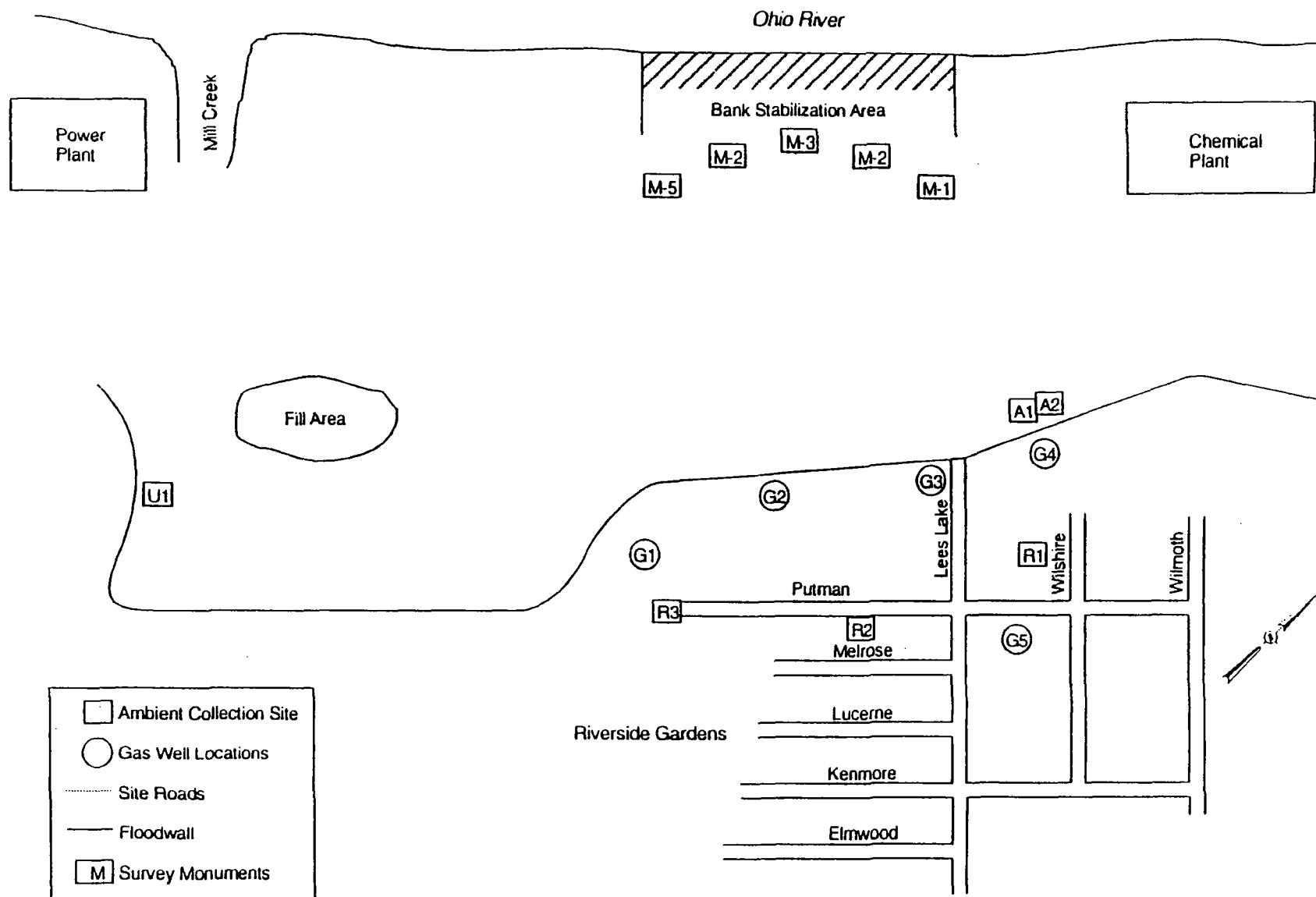


Figure 1. Lees Lane Landfill Sampling Locations

TABLE 1

TO-15 DATA SUMMARY FOR AMBIENT  
AIR SAMPLES AT THE LEE'S LANE LANDFILL  
SAMPLING DATE: 30 SEPTEMBER 2005

Sample ID	Ambient Air Samples					
	U1	A1	A2	R1	R2	R3
Canister ID	RA2105	A50016	A500205	HL2072	A500210	HL0896
Dilution Factor	3.7933	4.2629	2.7657	3.7117	3.725	2.6477
Location	Upwind	On-site	On-site(dup)	Residential	Residential	Residential
Veriflow ID	A176632	A133246	A155250	A176658	A176657	A103432
Compound (ppbV)						
Benzene	ND	ND	0.177	0.206	ND	0.286
Methylene chloride	0.263	0.191	0.126	0.465	0.261	0.165
Toluene	0.94	1.42	2.18	2.04	1.36	2.40
Vinyl chloride	ND	ND	ND	ND	ND	ND
Xylene (Total)	ND	ND	ND	0.127	ND	0.123
Methane (ppmV)	17.6	16.9	13.2	18.2	19.4	13.0

ND = Non Detect

TABLE 2

LOCAL METEOROLOGICAL DATA  
AMBIENT AIR SAMPLES  
SAMPLING DATE: 30 SEPTEMBER 2005

Time	Barometric Pressure (in Hg)	Temperature (F)	Dewpoint (F)	Wind Direction (from)	Wind Speed (mph)	Observation
8:00	30.13	48	45	West	3	CLEAR
9:00	30.15	51	47	Calm	0	SUNNY
10:00	30.16	56	48	Calm	0	MOSTLY SUNNY
11:00	30.17	60	45	Calm	0	MOSTLY SUNNY
12:00	30.17	64	44	Calm	0	MOSTLY SUNNY
1:00	30.16	67	43	East	8	MOSTLY SUNNY
2:00	30.14	69	43	SE	8	MOSTLY SUNNY
3:00	30.12	70	44	Calm	0	MOSTLY SUNNY
4:00	30.09	72	45	Variable	3	MOSTLY SUNNY
5:00	30.07	72	43	SE	8	MOSTLY SUNNY
6:00	30.06	72	44	SE	6	SUNNY

Source: National Weather Service, Louisville, Ky.

TABLE 3

**TO-15 DATA SUMMARY FOR GAS MONITORING  
WELL SAMPLES AT THE LEE'S LANE LANDFILL  
SAMPLING DATE: 30 SEPTEMBER 2005**

Sample ID	Well Samples						BLANK #1
	G1	G2	G3	G4	G5-L	G5-R	
Canister ID	HL0899	RA2099	RA2068	HL2112	HL0982	N/A	A168429
Dilution Factor	2.539	2.4385	2.4518	2.6477	2.5567	N/A	2.6477
Orifice	UNLABELED	UNLABELED	G-3	G-4	G-5L	N/A	N/A
Sampling Date	38,625	9/30/2005	9/30/2005	9/30/2005	9/30/2005	N/A	9/30/2005
Compound (ppbV)							
Benzene	37.2	ND	ND	ND	ND	N/A	ND
Methylene chloride	0.231	ND	ND	ND	ND	N/A	ND
Toluene	50.500	0.152	0.421	0.610	0.306	N/A	ND
Vinyl chloride	32.3	ND	ND	ND	0.332	N/A	ND
Xylene (Total)	ND	ND	ND	ND	ND	N/A	ND
Methane (ppmV)	57,900	12.5	12.9	15.9	16.3	N/A	2.2

ND = Non-Detect



URS Corporation  
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Morrisville, North Carolina 27560  
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31824218.3902

January 24, 2006

Mr. Rick Watkins  
Louisville Metropolitan Sewer District  
3050 Commerce Center Place  
Louisville, KY 40211

Dear Rick:

Enclosed is the supplemental report for the ambient and gas monitoring well samples collected at the Lee's Lane Landfill site on September 30, 2005. Table 4 has been prepared electronically for your convenience to complete the project file per your request. Table 4A/B summarizes only those TO-15 compounds which had positive hits (above the quantitation limit) for both the ambient air and gas well samples during the third quarter 2005 (38<sup>th</sup>) sampling campaign. An electronic copy (floppy disk) of the Excel table is included for your records.

URS appreciates the opportunity to assist your staff with this project. Please advise me at (919) 461-1242 if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert F. Jongloux".

Robert F. Jongloux  
Project Manager

RFJ/Task38

Enclosures

cc: Michael Kajder URS/LOU  
Project File/Task 38

**Table 4-A**  
**TO-15 Analytes From Lee's Lane Landfill - LMSD**

**SAMPLING DATE: 30 SEPTEMBER 2005**

Sample ID	Ambient Air Samples					
	U1	A1	A2	R1	R2	R3
Canister ID	RA2105	A50016	A500205	HL2072	A500210	HL0896
Dilution Factor	3.7933	4.2629	2.7657	3.7117	3.725	2.6477
Location	Upwind	On-site	On-site(dup)	Residential	Residential	Residential
Veriflow IC	A176632	A133246	A155250	A176658	A176657	A103432
Compound (ppbV)						
Acetylene	2.75	3.02	3.13	3.18	3.42	6.06
Benzene	ND	ND	0.177	0.206	ND	0.286
Carbon tetrachloride	0.107	ND	0.0957	0.0727	0.104	0.090
Chloroethane	ND	ND	ND	ND	ND	ND
Chloromethane	0.619	0.732	0.678	0.569	0.645	0.678
Dichlorodifluoromethane	0.650	0.687	0.694	0.696	0.626	0.690
Methane (ppmV)	17.6	16.9	13.2	18.2	19.4	13.0
Methylene chloride	0.263	0.191	0.126	0.465	0.261	0.165
Propylene	0.318	0.586	0.312	0.402	0.284	0.404
Toluene	0.9	1.42	2.18	2.04	1.36	2.40
Trichlorofluoromethane	2.690	3.120	2.070	2.960	2.400	3.730
o-Xylene	ND	ND	ND	ND	ND	ND
p-Xylene/m-Xylene	ND	ND	ND	0.127	ND	0.123

ND = Non Detect

**Table 4-B**  
**TO-15 Analytes From Lee's Lane Landfill - LMSL**

**SAMPLING DATE: 30 SEPTEMBER 2005**

Sample ID	Well Samples					
	G1	G2	G3	G4	G5-L	BLANK #1
Canister ID	HL0899	RA2099	RA2068	HL2112	HL0982	A168429
Dilution Factor	2.5392	2.4385	2.4518	2.6477	2.5567	2.6477
Orifice	UL	UL	G-3	G-4	G-5L	N/A
Sampling Date	9/30/2005	9/30/2005	9/30/2005	9/30/2005	9/30/2005	9/30/2005
Compound (ppbV)						
1,1,1-Trichloroethane	ND	ND	ND	0.117	ND	ND
1,1,2-Trichlorotrifluoroethane	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5.17	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.566	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND
1,3-Butadiene	ND	ND	0.347	0.382	ND	ND
Acetylene	ND	0.193	0.647	1.310	0.898	ND
Benzene	37.2	ND	ND	ND	ND	ND
Carbon tetrachloride	ND	0.0892	ND	0.789	0.0608	ND
Chloroethane	125	ND	ND	ND	ND	ND
Chloroform	ND	0.0283	0.109	0.210	ND	ND
Chloromethane	ND	ND	ND	1.250	0.713	ND
Dichlorodifluoromethane	8.35	1.34	0.626	0.648	0.668	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND
Halocarbon 114	188	0.468	ND	ND	ND	141
Hexachloro-1,3-butadiene	ND	ND	ND	ND	ND	ND
Methane (ppmV)	57,900	12.5	12.9	15.9	16.3	2.2
Methylene chloride	0.231	ND	ND	ND	ND	ND
Propylene	810	0.129	ND	0.273	0.231	ND
Tetrachloroethene	21.7	0.427	0.314	ND	ND	ND
Toluene	50.5	0.152	0.421	0.610	0.306	ND
Trichloroethene	15.3	ND	ND	ND	ND	ND
Trichlorofluoromethane	ND	0.4	0.321	1.570	0.351	ND
Vinyl chloride	32.3	ND	ND	ND	0.332	ND
cis-1,2-Dichloroethene	114	ND	ND	ND	ND	46.5
o-Xylene	ND	ND	ND	ND	ND	ND
p-Xylene/m-Xylene	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	6.16	ND	ND	ND	ND	ND

ND = Non Detect